THE AMERICAN BEE JOURNAL
CIRCULATES ALL OVER THE WORLD
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THOMAS G. NEWMAN,
EDITOR.

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EDITORIAL BUZZINGS.

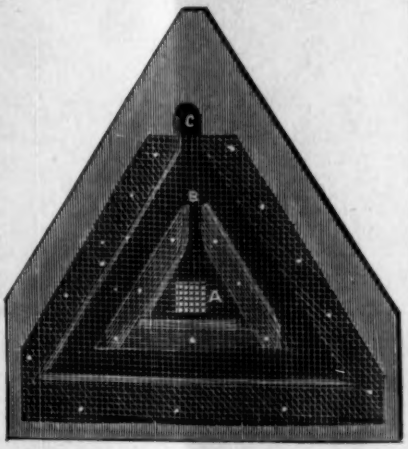
"If the weather is fair,"
Said the butterfly, jauntily and free,
"If the weather is fair,
I'll go dance in the meadow there!"
"And I," said the prudent bee,
"Will be early at work, you will see—
If the weather is fair!"

The Rev. W. F. Clarke, President of the Ontario Bee-Keepers' Association, gave us a call last week. He is troubled with sciatica, and has to use a cane and a crutch. We had a pleasant visit with him, and hope he will soon recover his usual health. Our readers will soon have the pleasure of seeing articles from his pen again; other duties which prevented such for several months, have been so arranged as to allow him to resume his pen for the AMERICAN BEE JOURNAL.

Walter Harmer is pretty well-known as the ingenious inventor of penny packages for honey. His latest invention in that line is a small cone 2½ inches high, 1½ inches at the base, and running to a peak. The "wrapper" is thin comb foundation, which is filled with candied honey, making an enticing sweet-meat to be sold for 2 cents at fairs or candy stores. It can be taken by the fingers and eaten like a piece of candy. It is cheap, enticing and delicious.

L. A. Aspinwall was elected President of the corporation of Three Rivers, Mich., by 217 majority. We congratulate Mr. A. upon his popularity at home. Bee-keepers will have nothing to complain of in that town; for if President Aspinwall does not enlighten the fossils, it will be a hopeless task for any one else.

Another Bee-Escape.—The engraving shows the latest Bee-Escape as devised by Mr. C. Russell, of Conesville, N. Y. An inner triangle surrounds the exit-hole, (A), presenting a passage-way (B) to the bees



which enter the Escape at (C). The engraving shows the underside of the Escape.

We have received another sample of a Bee-Escape from Mr. Reese, of Kentucky, of which we will present an engraving with a descriptive article next week.

Bogus Extracted Honey.—We have received the following from Mr. T. H. Kloer, of Terre Haute, Ind., dated March 19, 1890:

I have sent to the BEE JOURNAL office a small jar labeled, "Pure Clover Honey; Albert Botsford Co., Chicago." The jars are in two sizes, the one which I sent being the smaller size. The article has been sold extensively in this city during the past winter, interfering considerably with the sale of extracted honey. It has been kept by most grocers. Will you be so kind as to give me your valued opinion as to the contents of the jar—both the liquid and solid portions of it? Of course, I have *my* opinion, and have expressed it freely; but an expression from you, might convey conviction in many places, where I alone would fail. I act only for the good of the fraternity. Please reply in the AMERICAN BEE JOURNAL. T. H. KLOER.

Upon receipt of the jar referred to in the above letter, we immediately investigated the matter. We found that the office of the "Albert Botsford Co." was located in a dark and dingy basement of a building on one of the worst streets of this city. At the time we called, there were several young girls at work bottling, or canning, cucumber pickles, in a room just opposite the main office. We saw Mr. Botsford, and enquired in regard to the "honey" in jars that we understood he had for sale. Going to the canning room, he told one of the girls to get a "sample of that honey," which she succeeded in finding after some delay.

We took the sample (which was a half-pint glass jar full of a dark liquid with a piece of honey-comb in it), held it up to the light, and then said, "Is this *pure* honey?" "Oh, no," replied Mr. Botsford; "it is a mixture of *glucose* and honey—*about* one-third glucose and two-thirds honey."

We should say that the "stuff" is mainly a poor article of glucose, with a little buckwheat honey to flavor it; the small crust which was candied showing the amount of honey—the liquid being poor glucose.

"Do you sell much of it?" we ventured. "Oh, yes," he replied. He then said that a man in Indiana (at Terre Haute), who had been fighting this article of "honey" all winter, had just written him a letter asking for prices, and stating that he wanted to keep it for sale; that a great deal of it was used there; and that pure honey was too dear. "I'll read you the letter," he finally said. He did so, and we were surprised to learn that it was from Mr. Kloer, himself. Of course we are well aware that it was a *decoy* letter.

Mr. Botsford informed us that he could sell the half-pint jars of the "honey" to us for $1.00 per dozen, and that it should retail for 15 cents per jar; that the demand was increasing, etc. "How any sane person would use such miserable stuff, when the pure article can be had at a less price, is beyond our comprehension," we thought!

Bee-keepers should learn a valuable lesson from this. What they should do is, to teach their neighbors the difference between such villainous compounds and the genuine sweet as gathered and stored by the bees. It should be the aim of each bee-keeper to educate every family in his neighborhood, or township, so that they will accept nothing in the line of honey, but the pure and unadulterated article.

This can be accomplished in no other way so well as by distributing the Honey Almanacs in every locality. Let your motto be, "An Almanac in every household, and honey on every table." When this is done, there will be no more complaints about low prices and no demand for the best and healthiest article of food and medicine in existence to-day. (See prices of the Almanacs on page 224).

☞ Mr. C. F. Muth has sent us one of his shipping-crates to hold 12 one-pound sections. It is simple, neat and substantial. Crates to hold only one tier of section are the most desirable; those holding two tiers of sections are often the cause of much trouble when carelessly handled. A good piece of manilla paper between the tiers is essential in a shipping-crate which holds more than one tier of sections, to protect the lower sections from leakage above.

☞ A correspondent of the new State of Washington writes thus on March 10, 1890:

We have snow, showers and sunshine much after the Michigan April to-day, with the exception that we do not have much wind. As usual, the snow melts as it falls, and we have mud. Robins are about, but the song of the frog is hushed in the cool air and the "beautiful snow."

Pause and Think.

Onr trials we could soften,
If we'd only pause and think.
Tears would not flow so often,
If we'd only pause and think.
Our skies would all be brighter,
And our burdens would be lighter,
Our deeds would all be whiter
If we'd only pause and think.

We would not proceed so blindly
If we'd only pause and think.
We would never speak unkindly
If we'd only pause and think.
We would cease unrest to borrow,
Darkly clouding each to-morrow,
We would banish worlds of sorrow
If we'd only pause and think.—*Sel.*

GLEAMS OF NEWS.

Awards at the Late Paris Exposition.—Concerning these Awards, we would refer our readers to a circular issued by the United States Department of Agriculture, and dated at Washington, D. C., March 10, 1890, which reads as follows:

Frequent inquiries are being received at this Department by those who received awards at the late Paris Exposition, as to how to go to work to obtain their awards, when they can be obtained, etc. All that we have been able hitherto to say in replying to these inquiries was, that, first, according to a decision of the authorities, no medals (except perhaps those of bronze) will be struck, but diplomas indicating the kind of award will be issued, and it will devolve upon the awardee to pay for the striking of the medal if he wishes one; second, judging from experience with preceding Expositions, it will be many months before the diplomas are distributed, and they will be distributed, when ready, through the State Department.

The *Journal des Debats* of Jan. 10 last, contained official information which will be interesting in this connection. It announces that: the copies of the diplomas intended for exhibitors who received awards will not be delivered before March 1, though by the terms of contract, they should have been delivered by Jan. 1. The delay is due to an accident which happened to the engraver. It is further announced that, "The diplomas will in any event be entirely distributed, as at present advised, by Aug. 1, 1890, by which time all of the bronze medals which are to accompany diplomas, indicating recompenses above the grade of honorable mention, will also be distributed."

Further information as to details of cost and methods of obtaining the higher medals awarded, will no doubt be sent out by Commissioner General Franklin as soon as obtained.

In this connection I take pleasure in stating that, in addition to awards to American exhibitors in the Agricultural Exhibit there was received, some time since, a supplementary list of awards to collaborators who helped in their exhibit, including the following not mentioned in the original list sent out last November.

CLASS 76.—USEFUL INSECTS.

SILVER MEDALS.

N. W. McLain, St. Anthony's Park, Minn.
Philip Walker, Washington, D. C.

BRONZE MEDALS.

A. J. Cook, Lansing, Mich.
G. W. Demaree, Christiansburg, Ky.
W. T. Falconer, Jamestown, N. Y.
G. L. Tinker, New Philadelphia, O.
A. C. Tyrrel, Madison, Nebr.
James Heddon, Dowagiac, Mich.
C. F. Muth & Son, Cincinnati, O.
Thomas G. Newman & Son, Chicago, Ills.
A. I. Root, Medina, O.
J. Van Deusen & Sons, Sprout Brook, N. Y.

A summary of the awards in the Agricultural Exhibit shows the following results: Grand prizes, 7; gold medals, 40; silver medals, 68; bronze medals, 54; honorable mentions, 39; and a comparison with the American awards in the same classes at previous Paris Expositions, or with those in other classes in 1889, must needs be gratifying to all concerned in the agricultural exhibit at the late Exposition.

J. M. RUSK, *Sec.*

We can see no reason for the long delays in supplying the medals, etc. In August, 1879, we were awarded a silver medal for an exhibit at Prague, Austria, and though eleven years have nearly elapsed the medal has not been received. We need a reform in the management of such exhibitions. Let the management of the Columbian World's Fair in 1892, set an example to the world in this matter, by prompt delivery of prizes awarded.

La Grippe.—The epidemic that raged all winter throughout Europe and America is a disease that makes its visits only about once in a century in an epidemic form.

It is claimed by the medical profession that of itself it is not especially dangerous, but is apt to fasten its fangs upon weak constitutions, and especially upon those who are subject to pulmonary troubles, or any other constitutional weakness. Those who died, scarcely without an exception succumbed, not to the influenza, but by the aggravation of some previously existing trouble by the influenza.

It is very likely that the mild winter may have something to do with it. The medical profession both of Europe and America seems inclined to the theory that the disease is due to a microbe that fills the atmosphere, and enters the system by inhalation. If this be true, the mild winter may have given rise to the creation of the microbe. It is singular, however, that the disease should come to us from Russia, where the winters are very rigorous—*Ex.*

☞ An exchange contains the following "fishy" paragraph:

FROM THE SKIES.—In various parts of Laurens county, S. C., an unusually quantity of "honey-dew" is reported to have fallen; and in some cases the phenomenon of a shower of sweet water from a cloudless sky caused not a little alarm.

"Sweet water from a cloudless sky" is drawing upon the imagination considerably.

☞ Clubs for anything in our Premium List may be for either of our JOURNALS, or for any number of either or both of them.

Fractional Currency.—What is needed by those who live in the country, more than any other convenience, is paper fractional currency issued by the United States Government. The law introduced last year authorizing it was buried in a "pigeon-hole" by a committee. Let it now be resurrected and passed. The following from an exchange is to the point:

The ten million people who live in large cities, most Congress members among them, have no need of buying through the mails. They can go to a store near by and procure any article they may desire. But the fifty odd millions of our population living in the country and country towns are differently situated. Where are they going to get many of the conveniences and necessities of rural life—such as books, papers, seeds, plants, roots, flowers, insecticides, horticultural implements, and a host of other things, not on sale in their immediate neighborhood—if not by purchase from a distance?

These fifty odd million people must make remittances by mail, and it is not always convenient to do this by postal note or money orders; hence the fifty odd million of people thus situated should be supplied with money suited to their needs. Postage stamps were never designed for currency and with their small size and sticky backs, and not being legal tender, are in no way suited for that purpose. Yet for want of something better, millions of dollars worth of stamps are thus in circulation—a dread to the sender, and a poor apology for legal tender money in the hands of seedsmen, nurserymen and other shippers of small merchandise, as well as of publishers.

This urgent need can be supplied by the re-issue of a few million dollars in fractional currency.

New Catalogues and Price-Lists for 1890 are received from—

Wm. H. Bright, Mazeppa, Minn.—20 pages—Bee-Keepers' Supplies.

J. T. Wilson, Little Hickman, Ky.—1 page—Italian Queens.

C. F. Muth & Son, Cincinnati, Ohio—32 pages—Bee-Keepers' Supplies.

F. A. Lockhart & Co., Patten's Mills, N. Y.—8 pages—Carniolan Bees and Queens.

Thos. S. Wallace, Clayton, Ills.—4 pages—Bees and Queens.

Smith & Smith, Kenton, Ohio.—26 pages—Implements in Bee-Culture.

Gillett & Horsford, Southwick, Mass.—32 pages—Wild Flowers, Shrubs, Trees and Vines.

Convention Notices.

☞ The spring meeting of the Northern Illinois Bee-Keepers' Association, will meet at the residence of D. A. Fuller, in Cherry Valley, Ills., on May 19th, 1890. D. A. FULLER, *Sec.*

☞ The next regular meeting of the Southwestern Wisconsin Bee-Keepers' Association will be held at Boscobel, Wis., on Thursday, May 1, 1890, at 10 a.m. BENJ. E. RICE, *Sec.*

☞ The 12th annual session of the Texas State Bee-Keepers' Association, will be held at Greenville, Hunt Co., Texas, on May 7 and 8, 1890. All interested are invited. J. N. HUNTER, *Sec.*

☞ The spring meeting of the Missouri State Bee-Keepers' Association, will be held at Marshall, Saline Co., Mo., on Wednesday and Thursday, April 16 and 17, 1890, in the County Court Room. Reduced rates at the hotel, for bee-keepers, have been secured, and a committee is at work to secure rates on the railroads. A cordial invitation is extended to bee-keepers everywhere, and especially to those of Missouri. A number of essays from prominent bee-men are expected, and an interesting time is anticipated.

J. W. ROUSE, *Sec.*

QUERIES AND REPLIES.

Do Bees Change the Consistency of Nectar on the Wing?

Written for the American Bee Journal

Query 697.—Do bees increase the consistency of nectar voluntarily, while on the wing homeward from their pasturage? or is the fine spray, which it is inferred they eject, a regurgitation caused by excessive exertion while flying with an over-laden honey-sac?—Maine.

I think not.—G. L. TINKER.

I do not know.—R. L. TAYLOR.

I do not know.—C. H. DIBBERN.

I do not know.—J. M. HAMBAUGH.

I give it up before I try.—A. B. MASON.

I never saw the "fine spray" spoken of.—G. M. DOOLITTLE.

I know too little to venture an opinion. I respectfully refer it to the "digested-nectarists."—EUGENE SECOR.

Do they eject a fine spray in their homeward flight? I think not.—MRS. L. HARRISON.

I do not know. The only way to find out, would be to catch the spray, and ascertain whether it is water or nectar.—M. MAHIN.

I rather think that they increase the consistency *voluntarily*, but I doubt about any such "regurgitation" as you speak of.—C. C. MILLER.

This question, I think, is beyond the power of human ken to answer. It is the quintessence of infinitesimalism.—J. P. H. BROWN.

I doubt if the honey is thickened. It is in the honey-stomach, undergoing digestion, or the change into honey.—A. J. COOK.

I know nothing positive in regard to it. Do you really mean "regurgitation?" I think that "evacuation" would come nearer to it.—H. D. CUTTING.

I think not. The ejections sometimes seen (when bees are feeding on thin syrup) in their transit from the feeding-place to the hive, is a discharge from the lower bowel—not from the honey-sac. No doubt it is the result of mechanical pressure, as you suggest.—G. W. DEMAREE.

I do not know. How should anybody know? What difference does it make if they do? If they get their little "pails" so full that they cannot be jostled without spilling, we must get larger ones for them.—J. M. SHUCK.

In our opinion, the fine spray is a discharge from the abdomen of the feces, of the watery honey which they have been consuming. We not believe that the honey which they have gathered, ripens in their stomach; nor do we believe that they can separate the honey in the honey-sac from the water, and regurgitate the latter.—DADANT & SON.

Bees gather honey in obedience to the laws of Nature, and that is about all we know about it. There are many theories afloat in regard to the changes that do, or do not, take place in the stomachs of the bees; but who is right, or who is wrong, is still a mooted question. I do not think, however, that the question throws any light at all.—J. E. POND.

I do not know. One of the main reasons why I do not know, is because I do not care. The principal reason why I do not care, is because I follow bee-keeping, and spend my time and energies in observing and experimenting for the purpose of getting money out of the business. My wife and children require new dresses and shoes, and sometimes I want a "new gown" myself; that is what I follow bee-keeping for, and not for idle curiosity. I believe that I know more about the practical, useful things connected with bee-keeping for the simple reason that I never bother my brain about the question of whether the queen faces north or south, or looks into the cell just before she backs in it to lay an egg. It does not make an difference with the amount of surplus honey I am to get, and the least amount of labor I will need to expend to get it.—JAMES HEDDON.

Management to Secure Honey Instead of Swarms.

Written for the American Bee Journal

Query 696.—1. Would it be practical, after a colony has become strong, and about ready to swarm, or at the time when the apiarist desires his bees to be gathering honey instead of rearing brood, to shut the queen in one side of the hive, on one or two combs, by the use of a piece of perforated zinc as long as the hive (inside measurement), and wide enough to bend over the top of the one or two combs? 2. How would it affect swarming?—Iowa.

1. I do not know.—H. D. CUTTING.

1 and 2. Try it and see.—A. B. MASON.

1. I do not think that you would like it. 2. It might hasten it.—C. C. MILLER.

1. I think not. 2. I think that they would very likely swarm.—A. J. COOK.

Some recommend a similar plan. I prefer to let the bees swarm.—G. M. DOOLITTLE.

1. While I have no practical knowledge on the subject, I doubt if it would pay.—EUGENE SECOR.

1. I do not think that it would be practicable. 2. Try it and report.—C. H. DIBBERN.

1. It might be practicable, but it would not be practical. 2. The bees would build queen-cells and swarm.—M. MAHIN

The plan you suggest has often been tried, and I think that it has as often been found a failure. 2. It will not prevent swarming.—G. W. DEMAREE.

1. I do not think that the plan is practical or advisable. 2. It would not prevent swarming.—G. L. TINKER.

It would be perfectly practical, but I do not think that it would be advisable to do so. In many cases it would lead to building queen-cells and swarming.—J. P. H. BROWN.

1. It is not practical. Keep the brood-combs in proper condition, and give the queen the liberty of her house. 2. It would not prevent swarming.—J. M. SHUCK.

1. I do not think that it is practical or advisable. 2. If the colony had "become strong and about ready to swarm," of course they would have facilities for rearing a new queen, or several of them.—MRS. L. HARRISON.

1. No. 2. It would be likely to lead to an irregular sort of after-swarming, as most of the colonies would probably rear a lot of young queens, even if they would not otherwise have done so.—R. L. TAYLOR.

1. It would not work in my locality, where I want bees in abundance till frost. I very much doubt if your plan can be made practical in any locality. 2. You may prevent swarming to some extent by this method.—J. M. HAMBAUGH.

1. It might; but why not get Doolittle's "Scientific Queen-Rearing," and follow that? The method you suggest, is old, and has not been found of value, as compared with many others. 2. Much would depend. It might set the bees in a rage, and work badly.—J. E. POND.

1. No, sir; it is not practical. The labor of performance and the results flowing from it, will cause any person to abandon it if he once begins it. 2. It will not prevent the queen getting out in most cases. After a time they will have the young queens hatched out on the other side of the zinc. Then they will swarm with a young queen.—JAMES HEDDON.

The April Number of "Frank Leslie's Popular Monthly" contains fully a dozen elaborately illustrated articles, any one of which is worth buying the magazine for. "The Senate and its Leaders" is discussed in bright, gossipy style by Frederick Daniel, and nearly a score of portraits and views accompany the text. Wm. Hosea Ballou describes the Tennessee Blue-grass region and its thoroughbred horses, together with the historic homes of Presidents Polk and Andrew Jackson. The wonders of Edison's perfected phonograph and graphophone are brilliantly set forth by Arthur V. Abbott, in an article entitled "A Voice from the Past," with the best pictures that have ever been published in connection with this subject. The short stories and poems of the number are by favorite magazine writers, including Lucy Hooper, Ella Wheeler Wilcox, and others.

☞ "Insect Life" for March, published by the Division of Entomology of the United States Department of Agriculture, is now ready for distribution. It contains, besides various special and general notes and extracts from the correspondence of the Division, an article on "Cockroaches," being a continuation of Prof. Riley's series of articles on the "Insect Pests of the Household;" an account of two new spider-egg parasites, by Mr. Howard; a translation of a French article on the parasitic castration of an insect by Hymenopterous and Dipterous larvæ; an account of a poisonous spider in Madagascar; and another installment of Lord Walsingham's Revision of Chambers' Index of the North American Tineina, a group of small moths which are universally injurious either to forest trees and other vegetation, or our household goods.

Why Advertise in the AMERICAN BEE JOURNAL? Here are some good reasons:

1. Because it has a large and influential circulation in every State and Territory, Canada, and other foreign countries.

2. Because it is well-printed, and an advertisement in it appears neat and attractive, and invites a reading.

3. Because it reaches just the class of persons desired—professional men, lawyers, doctors, and the best rural population.

4. The rates are low and the returns from advertisements are satisfactory.

We have received hundreds of unsolicited commendations of the BEE JOURNAL as an advertising medium, but have no room to give them here.

March.

Though winter waits reluctant
To yield the rule to March,
The sun with step exultant
Walks high through heaven's arch,
Till day and night
Bring new delight,
By equal hours in March.

At rest in winter's rigor
The life-tide wends its way,
Ascending with new vigor,
Up through the branches gray,
From roots below
'Neath melting snow,
Predicting leaves of May.

—*Clara Hapgood Nash.*

CORRESPONDENCE.

BROOD-COMBS.

Their Proper Thickness—Honey Plants on Farm-Land.

Written for the American Bee Journal

BY DR. C. C. MILLER.

On page 141, Mr. J. E. Pond advises top-bars ⅛ of an inch thick, spaced bee-space apart; and elsewhere he advises shaving down any combs which are more than ⅛ of an inch thick. I have not been very successful in attempting to carry out this plan, although some fault may have been in me, but it seems to me that some things are not taken fully into account.

Mr. Pond makes the very strong statement that "the whole matter of bee-keeping work is reduced to a minimum, all that is required being to start with sheets of comb just ⅛ of an inch thick, and so spaced that they cannot be built any deeper." Now it is a fact not always, if indeed often, taken into account, that with age the thickness of comb increases. For another purpose I once made investigation as to thickness of comb, and while I found new comb ⅛ of an inch thick, I found some old comb fully an inch in thickness. I have some doubt if Mr. Quinby would have made the tin combs, of which Mr. Pond speaks, an inch thick, if he had not found natural comb of that thickness. The explanation of the increased thickness is easy. The continued rearing of bees in the worker-cells—and, by the way, worker-comb alone is to be considered—leaves deposits of cocoons, mainly at the *bottom* of the cells, so that old comb measuring an inch in thickness, will be found to have a septum ⅛ of an inch in thickness.

Now suppose we "start with sheets of comb just ⅛ of an inch thick, and so spaced that they cannot be built any deeper." What will be the result when the septum increases in thickness? The combs are "so spaced that they cannot be built any deeper;" and my observation has been, that in such case the bees will gnaw down part of the cells in one comb, in order to deepen the cells of the opposite comb, and, as a consequence, no brood will be reared in the cells which have been gnawed down. If bees would empty out the cocoons, the same thickness might be maintained; but do they ever do this, without first cutting down the entire cell walls?

I would give something to know just what is the best distance to space top-bars from center to center. Some say as much as 1½ inches—perhaps a majority say about 1⅜ inches, and a very few come down to 1¼ inches, while Mr. Pond stands alone, I think, in recommending 1 3-16 inches. This is on the supposition that by "bee-space" he means the commonly accepted 5-16 of an inch.

FARM LAND FOR HONEY ALONE.

Will it pay to occupy farm land for honey alone? While I have doubts on the subject, I would not utterly discourage experiments in that direction. I think it just possible that it might be profitable to occupy some land entirely with melilot. It depends upon the value of the land, and the amount of honey obtained in excess of what would be got without the melilot.

The answer to the problem would be comparatively easy, if we knew even approximately the amount of honey an acre of melilot yields in a season. Do we know anything about it? Can any one prove that it is more than one pound per acre in a season? Can any one prove that it is less than 200?

On page 147, Mr. S. W. Chambers, in a very sensible article, says, "The bee-keeper could not calculate on more than 10 pounds of honey per acre from honey-producing plants." If he means, as likely he does, the average "over thousands of acres," I think that he is right. If he means an acre solely occupied with honey-plants, he is putting it very low.

Mr. Quinby—if I remember rightly—estimated that an acre of buckwheat yields 25 pounds of honey per day, and I should think that would make at least 200 pounds per season.

Mr. Chambers says: "A man must expect at least $15 per acre for the use of his land." I think that he hardly means just that. Does he not mean for land and labor? In many places the use of land can be had for $3 per acre, or less. Now if such land is occupied with melilot, and the melilot needs no cultivation, how much honey must be gotten to make it profitable? If it gives an *additional* yield, then little or nothing need be counted for the expense of harvesting, for nearly the same work must be done in a season for a small as a large crop. So we may apply on the rent very nearly every pound of honey that we get *more* than we would get without the melilot.

If the honey is worth 10 cents per pound more than the labor it requires, then to pay $3, the acre must yield 30 pounds in a season. Mind you, it must not merely produce 30 pounds in a season—it might do that without any profit whatever, if the melilot should yield when bees have all they can do on the other plants; but it must increase my crop at the rate of 30 pounds per acre. I must confess that it looks to me that it might easily do so in some years, and in some places. Can any one tell us anything definitely about it?

Marengo, Ills.

SHIPPING-CRATES.

Importance of Using Small Crates for Comb Honey.

Written for the American Bee Journal

BY CHAS. F. MUTH & SON.

Shipping-crates for comb honey are a very important item for the bee-keeper as well as the dealer. The safe arrival of the comb honey depends principally on the shipping-crates; and, next to the quality of the honey, it is the crate that makes the sale. We had very many shipments of comb honey last season, and, as in previous years, there were a variety of different sized crates. We found, invariably, that the smallest crates were the safest for transportation, and the first sold.

If it was not for the mutual interests of the shipper and consignee, the disappointment, and, often, the unpleasant feeling created by the arrival of a lot of comb honey in bad condition, should be cause enough to throw aside every crate unfit for shipment. As in previous seasons, this winter we had a number of large crates containing 48 one-pound sections, and even 48 two-pound sections, also one of 45 sections—60 pounds net—of comb honey in a crate. It is too much. A heavy crate is invariably set down heavy, and a jar to one side seems to break a whole row of combs. Crates holding 24 sections are a great deal better, but they are also too large.

By far the most practical, the safest in transit, the most salable, and the cheapest of all shipping-crates, are those containing 12 one-pound sections. We shall hereafter recommend only such to be used by our friends and shippers. As a great many lots

of comb honey pass through our hands, our chance to become acquainted with all kinds of packages is second to none, and our judgment, as to the best package, ought to be competent,

During the present winter, we had among perhaps a dozen, only one shipment of comb honey having 12 sections in a crate, which arrived in bad condition, while almost every other shipment in larger crates arrived more or less damaged. The damage in those small crates was not great, and could easily be seen, the broken combs taken out and replaced by sound ones from another crate. But no one unacquainted with it, can appreciate the job of overhauling a large lot of comb honey in large shipping-crates. One is at a loss to know what to do with the broken combs. So, it is our candid and well-meant advice, that the large shipping-case—"must go."

[This is excellent advice, and should be heeded by all who ship honey to large markets. Small shipping-crates holding 12 combs are large enough for anything. They can be transported more safely, and sell more readily.—ED.]

SWARM-HIVERS.

Suggestions in Regard to Self-Hiving Arrangements.

Written for the American Bee Journal

BY G. M. ALVES.

Since self-swarming devices are now so much occupying the attention of bee-keepers, I have two plans to suggest, neither of which would infringe, in my opinion, those upon which patents are now said to be pending. My first suggestion is as follows:

Make of wood a channel—say 3 inches long, and the same width as of the hives used. Let the ends be open, and the sides made of solid wood—say one inch high. Let the top be formed of three slats ¼ of an inch wide, which when fastened on the side pieces to form the top, would leave two openings at the top 3-16 of an inch wide. We thus have a wooden channel one inch high by three inches long, by the width of the hives used.

Now, at the proper time, put one end of this channel against the front of a hive, and against the front end of the channel place the back of a new hive; we thus have the new hive immediately in front of the old one, with a space of 3 inches between, filled by the channel. The sides of the new hive throughout their length, should rest upon pieces about one inch high, and the front of the new hive should have its entrance (which as now conditioned should be about 1⅛ inches high) covered with wire-netting. Have I ever tried the plan? No. Do I think it will work? Well, I believe it will; and, in any event, I have as much faith in it as those heretofore reported. It might sometimes work all right, and at other times it might not. We can only tell by experiments repeatedly made. One swallow does not make a summer.

The 3-16 inch openings in the top of the channel are large enough to readily admit loaded workers, and although the queen might pass through them, yet in the excitement and pell-mell of the swarming act, she and the large majority of her followers would, in all probability, take the most open route, and follow the greatest light—hence they would in all probability enter the new hive. It might be better instead of the wire netting, to cover the entrance of the new hive with queen-excluding zinc.

My other suggestion is this: Hang up about the bee-yard, nail-kegs or light boxes about 7 or 8 inches square, and about 20 inches deep, without bottoms. To these attach at the bottoms, by means of short cords, anything resembling a small swarm of bees, such as can be made from a piece of an old felt hat. A swarm will not always, but frequently it will, cluster on these, from which they will crawl up to the keg or box. They may then be taken and emptied in front of the hive intended for them.

In conclusion, I wish to say a word to beginners who desire to keep bees for profit, and that is this: Let all novel and untried devices and plans severely alone, which require expense and change of the hives and fixtures that you now use. Stick to those things which the continued experiences of others have proved to be valuable.

There is no greater delusion, than to think that because a thing is new, therefore it is an improvement. Out of the million and one ideas and devices which have appeared before the bee-keeping world, comb foundation, movable-combs and honey-sections, seem to be about the only things which have come to stay. Undoubtedly radical experiments are well in bee-keeping, as in other things, but they almost always are costly, and had best be confined to the few.

As a rule, improvements, when *real*, do not come easily—they usually require such an expenditure of time and money to make them practicable, and to introduce them to the public, that the time and money expended, if put in conservative channels, would generally prove more remunerative.

Henderson, Ky.

BEE-HIVES.

The Small Hives vs. Large Hives—Which?

Written for the American Bee Journal

BY G. M. DOOLITTLE.

In considering this subject of small *vs.* large hives, there are some things which are very essential, looking to the profit to be derived from the apiary, which, as far as I have seen, the advocates of large hives fail to mention. The advocates of these large hives base nearly all their supposed superiority of such hives on the principle that the larger the hive, the more bees there will be reared, and the more bees there are reared, the more honey the apiarist will have in the fall. Now, did we have one continuous yield of honey from the beginning of May to the end of October, this reasoning would be very nearly correct; and I here wish to say, that for those who are so lucky as to be situated in such a locality, this article will have no special interest.

But it so happens that 99 out of every 100 are not blest with a continuous yield of honey, and, in the majority of cases, the flowers of one plant or tree give the main honey crop of the season; hence at all other times of the year, except when this plant or tree is in blossom, the bees only get, from nothing (along the line of nectar) up to just enough to keep brood-rearing going on nicely. In all such localities as the last named, from my stand-point, it is impossible to secure the best results from our bees while using a large hive, and working for the production comb honey.

If bees sold for the almost fabulous prices at which they used to, the large hives might be profitable; but at the present prices, the *bees themselves* have no value in the fall of the year, as they will not sell for more in the spring than the cost of the hives, value of the combs, and stores consumed, allowing such stores to have been placed in a marketable shape the previous summer. For this reason, we are obliged to look at the matter from a honey stand-point.

The first reason why the large hive is not so good as the small one, in all ordinary locations, lies in the fact that the small hive gives greater warmth; or, in other words, allows of a better economizing of the heat of the cluster. Hence we can secure more bees early in the season, in time to take advantage of the white clover honey crop, with the small hive, as this crop comes too early for the bees to build up of their own accord, to work in that harvest to the best advantage.

The second reason—and the one that is at the "root of the matter"—regarding the greatest possible success in our pursuit, lies in the fact that, with the large hive, we must always rear a host of bees which must of necessity be only consumers. It must be always borne in mind, that each individual bee represents consumption of so much honey, a part of which is fed to it in the larval state, and the other part is consumed by the bee itself, after it reaches maturity.

Now, with the large hive, owing to the poor economy of heat, the bees do not begin breeding rapidly, nor can they be made to do so, until we are nearing the honey harvest, when they begin brood-rearing to an extent greater than it is possible for them to do in the small hive, owing to the walls contracting the egg-laying powers of the queen with the small one. This great extent of brood in the large hive, at this time, requires a large amount of honey to feed it, and as the days go by, the amount of brood is rapidly increased, until it oft-times takes nearly all the honey the workers reared previously can gather from the fields during the first half of the harvest to supply the wants of this host of bees in the larval form. In turn, these bees hatch at near the close of the harvest, so they do only a very little work in that harvest, after which they of necessity become consumers, and so eat largely of the honey gathered during the harvest, to the loss of the bee-keeper and all concerned. In this way we are producing honey in the most expensive manner, rather than as cheaply as possible.

After studying on this matter some years ago, I came to the conclusion that a small hive would give me much better results, from the fact that with it I could get the greatest force of bees on the stage of action as gatherers, just when the harvest was ripe for gathering, and rear as few at all other times as was consistent with accomplishing this object. After years of experience, I am satisfied with the results, as compared with a like number of years with large hives.

The hive which I use, contains about 1,000 square inches of comb, and as this will give, on an average, about 800 for brood, exclusive of the comb occupied with pollen, and the little honey they always will have in the brood-nest, I have about 1,600 square inches of comb surface that will be kept solid with brood so long as I leave all the combs in the hive. Allowing 28 bees to hatch from each square inch of comb surface, I have 44,800 bees hatching every 21 days. As the queen is capable of placing two and one-seventh generations of bees on the stage of action to where one dies off, this gives me 96,000 bees as the number I can have for the harvest, from each hive, providing that I am able to get the combs full of brood 45 days previous to this harvest.

When the harvest arrives, or a little before, I begin to contract the capacity of the hive down to about 800 square inches of comb surface, so that at all times except *at the right time*, I am rearing no more bees than are actually needed to carry on that work which is necessary to produce this large force just previous to the harvest. Right here lies the secret, in my opinion, of successful honey-production; and I find by mingling with many bee-keepers, as I have lately done, that it is a "something" not considered at all by the average bee-keeper. Only as we fully understand this, and other important items which relate to our pursuit, can we expect to reap the best results from our bees.

Borodino, N. Y.

KILLING BEES.

Destroying Bees, when Swarming Cannot be Prevented.

Written for the American Bee Journal

BY W. J. DAVIS, 1ST.

It may appear strange to some that the science of bee-keeping should require an article with the above heading, yet such is the fact. I take it for granted that the number who keep bees, just for the fun of the thing, is small. The result in dollars and cents must determine the question of keeping bees, as well as any other kind of domestic animals. I have all the volumes of the AMERICAN BEE JOURNAL from No. 1, Vol. I., to the present time, and I do not remember of seeing an article with the above heading.

The ingenuity of the bee-keeping fraternity has been taxed to its utmost, to devise means of preventing swarming, but the effort thus far I consider a failure when working for *comb* honey. That the giving of surplus room above the brood-nest does in some, and possibly in many, instances prevent the swarming fever, I do not deny; but all bee-keepers of experience know that it is not to be depended upon to prevent increase. Swarming may be kept at the minimum by the use of large hives, and the free use of the extractor, but that plan gives us no comb honey; and where extracted honey will not sell, there is poor encouragement for its production. It matters but little about its merits, if it cannot be turned into "legal tender," or the necessaries of life.

It is quite as much in harmony with the nature of the bee to swarm, as to collect honey and pollen. I have had some severe "tussles" with certain colonies, in saying, "You shall *not* swarm," when they said they *would*. I could cut out queen-cells, and put the swarm back, but with me it has generally been at the expense of whatever labor it took, and the accumulation of no honey while the swarming fever was on. This I say only in reference to first swarms. I must produce comb honey, for that is the demand of the market that I supply. Hence, as there is no way of preventing swarming, how are we to keep our colonies within bounds in large apiaries?

We have reached that point where bees will not sell in the spring, for as much as the hives and contents (minus the bees) are worth in the fall. Clearly, then, it is the better plan to reduce in the fall to the number desired. In so doing, the judicious bee-master will weed out the least desirable colonies. First, all that show any impurity of breeding—I want *no* "black blood" among my Italians. Second, such as do not give a satisfactory honey-record, as compared with other colonies in the same yard and season. Third, such colonies as would not be desirable on account of the age of the queen; and there may be other considerations that would cause the election of some colonies, and rejection of others.

If any should have conscientious scruples about the killing of bees, more than of chickens, lambs, pigs, calves, etc., I would suggest that they had better keep out of the "bee-business," unless they are either fortunate, or unfortunate, enough to lose about half in wintering.

HOW TO KILL BEES.

I first shake and brush the bees from their combs, and remove the combs and honey to safe quarters, and allow the bees to cluster in the empty hive. This I do in the afternoon, or towards evening. If the hive has a stationary bottom-board (as most of mine have), I remove the honey-board and allow them to cluster in the cap.

Early the next morning they are disposed of. I take a box 14 to 16 inches square, with one side hinged for a door, to be opened for the reception of a hot lid from the stove, to be placed on a flat stone on the bottom of the box, to prevent burning. The top of the box should be a little larger than the largest hive or cap to be placed thereon, and a hole 6 or 8 inches square, covered with wire-cloth, for the admission of the fumes of burning sulphur. The hot stove-lid is placed bottom up (to avoid unpleasant smell

when returned to the stove), and a good tea-spoonful of sulphur thrown on, and the door closed. As soon as "killed," the bees should be buried, as they would revive in the air and warmth.

I am free to confess that it is a very unpleasant job; as much as I dislike it, it seems as much of a necessity as the killing of other domestic animals.

It sometimes occurs, that we have seasons almost honeyless. When the revenue from the sale of honey is cut off, with even 100 or 200 colonies, the only alternative is to buy sugar for winter stores, or reduce the number of colonies. Such a season occurred here in 1871, and the autumn found me with 130 colonies, with honey for only 50. I "took up" 80 colonies. The next season being favorable, and having clean, empty combs for 80 hives, I found no difficulty in filling them.

Youngsville, Pa.

UNPAINTED HIVES.

Their Advantages Over those that are Painted.

Written for the American Bee Journal

BY C. THEILMANN.

For a number of years I have intended to write an article on painted and unpainted bee-hives, as they have proven their merits under my observation for the past twenty years; but I have always been somewhat afraid to give my experiments publicly, because most of our best bee-keepers take a position in their writings entirely contrary to the results of my experiments. However, I will now give my views of the question.

The first year (1869), I kept bees in a log, which I found in my timber. I increased them to 5 colonies that season, some of which I put into store-boxes, nail-kegs, and whatever was handiest to put the swarms in.

The next season I got painted Langstroth hives, and also in the third, fourth and fifth seasons, but the fifth season I also got 24 hives which were not planed or painted on the outside, but planed on the inside. By that time I took quite an interest in bee-keeping, and noticed that the unpainted hives did not get so hot in summer, and kept much drier in winter, and the bees wintered better in them than in the painted hives.

This, of course, was a big thing for me at that time, as I had a good deal of trouble and loss in wintering my bees; therefore I did not paint any more hives after that, though I did not study the theory much, but I was satisfied that my bees did better, summer and winter, in the unpainted hives, until I read Prof. Cook's experiments, published in the AMERICAN BEE JOURNAL, telling that his students blew out a candle-light, through the pores of an oak plank.

This set me to thinking about my unpainted bee-hives, and it became clear to me, that the pores in the wood are the correct theory, and I have made very practical use of it ever since; though it never was clear to me, that, after all the Professor's experiments (which we have no reason to doubt, even if we have to admit that there must have been some big "blowers" at the Michigan Agricultural College), he not only paints his hives, but advises others to do so; hence I have asked myself many times, to know what those experiments were made for. Will Prof. Cook please tell?

It seems hardly reasonable, that after the above-described experiments, we should paint bee-hives, when we consider the facts, that the paint will close all the pores of the wood, stop all circulation of air, and contract the heat of the sun, so that the hives get so hot that if a person put his hand on the top or sides, he would get it blistered in a short time; and many combs have melted down in the hives from the same effect; when, if the wood were left unplaned and unpainted, but little or no reflection would be created, circulation would not be stopped, and in cool nights the vapor would not condense on the inside of the hive, as it would have a chance to escape through the pores—in a word, an unpainted hive keeps nicer, drier, and does not get so hot in summer as does a painted hive.

Some will say that unpainted hives look homely. Well, they may look homely to some, but I can say that I know some *people* who look homely, but when I get better acquainted, I find that they have good hearts, and I like them; or, when I sit down hungry, at a table, and it is loaded with a lot of nice-looking dishes, some empty, and some containing unfit food, then my apetite will not get a bit of satisfaction.

Some pretend that painted hives will last longer. This is only talk and theory, without actual practice—at least I find it so here. The hives that I got 15 years ago, show that the unpainted ones are, to-day, in better condition than the painted ones that I got the same year. Lately a number of bee-keepers who visited me, wondered that I do not paint my hives; but when I explained the advantage that there was in it, and showed them the hives used for 15 years, side by side, they acknowledged that I had given facts.

Theilmanton, Minn.

PRIZE ESSAY.

Extracted Honey—How Produced by the Bees.

Written for the American Bee Journal

BY MRS. L. HARRISON.

"The bee sits on the bloom, extracting liquid sweets."

Many persons have a mistaken idea, with reference to extracted honey; they think that it is an essence, obtained by some chemical process. Pure extracted honey knows no chemist but the bee (or ever has known), which sits on the flower, extracting or drawing out sweets, made in Nature's own laboratories, which are the corollas of flowers. When the bee draws out the honey from a blossom, she deposits it in her sac, and flies to another flower. In her rapid flight, much of the water in the nectar is evaporated, and when her load is completed, she flies home and deposits it in a waxen cell, or gives it to young bees to feed the brood.

THE WORK IN THE HIVE.

In the economy of the bee-hive, each inmate has its allotted task—the field-workers gather nectar, propolis, pollen or water, while those in the hive secrete wax, build cells, prepare the food for the queen, drones or brood, store the honey when brought in, protect the colony against its enemies, and are always on the alert to preserve the happiness and prosperity of the colony.

GATHERING AND STORING HONEY.

Now let us watch a colony of bees during a high day in clover bloom. See the well-laden bees, come sailing in and dropping at the entrance, like ships after a long voyage, coming into port. The stevedores unload her quickly, and she sails away with her gauzy canvas spread to the wind, after another cargo.

Now let us take a look at what is going on within the hive, as to the deposition of the surplus honey brought in. At night, all the workers are invited to a grand "evaporating frolic," and no youngster, at a sugaring-off in a maple-sugar camp, ever enjoyed the fun more. The thin honey is taken from the cell, and worked back and forth on their proboscides, in a similar manner to the candy-workers; while the ventilators are plying their wings vigorously, to waft off the moisture. When the "sap" is boiled down to honey, it is again stored in the cells.

Now let us watch the building and storing of a cell of honey. The tiny base is first constructed, a little concave, and a drop of honey deposited;

then the sides of the cell are raised a trifle, and honey added, continually raising the sides, and filling until it is completed, when the sealing is commenced, gradually expelling the air, and sealing. The bees were the first canners known, and "goods" put up at their establishment will keep for all time, if stored in the right kind of an apartment, free from frost and dampness.

HOW EXTRACTED HONEY IS SECURED.

Extracted honey is this honey poured out of its waxen cell, just like we uncap a can of fruit, and pour its contents into another vessel, suitable to put upon the table. The sealing is cut from the cells with a very sharp knife, and then it is put into a wire basket, which revolves within a tin cylinder, and revolved quickly, when the cells are emptied by centrifugal force. The honey, as it is thrown against the sides of the can, runs down into the bottom, and is drawn off through a gate into suitable vessels.

In whatever shape this product may be bought in the open market, of this country, if it bears the name of the apiary and producer, it will prove to contain nothing but pure sweet distilled in the corollas of flowers.

Peoria, Ills.

HIVES.

Chaff or Double-Walled vs. Single-Walled Hives.

Written for the American Bee Journal

BY T. C. KELLY.

Having 33 colonies of bees, consisting of Carniolans, Italians and natives, all in good condition, I may possibly be entitled to the appellation of "beeman;" and so I want to express my opinion in regard to chaff or double walled hives *vs.* single-walled hives.

I use a hive, the dimensions of which accommodate a frame 10¼x15¼ inches, inside. I make the inside wall of ¼-inch boards, and the outside wall of ⅛-inch stuff, with ¾-inch air space between. I pack with chaff, in winter and summer. I have a detachable section-case, which I fill with loose buckwheat or oats chaff, after removing the enameled cloth in the fall. I place about two thicknesses of burlap over the frames, after having prepared passage-ways over the frames for the bees during a cold spell. I winter the bees on the summer stands, and have never lost a colony, when properly prepared in this manner. Yet my neighbors, who winter their bees in the single-walled hives, lose some each winter—and so did I when I used single-walled hives, even to all the bees I had.

As to double-walls being too cool for storing honey, let those who think so, watch their hives on some warm day in May or June, and see if they do not find a large number of bees fanning at the entrances. What is that for? Is it to cause a circulation of air, or to pass away time? If to cause circulation of air, then the double-wall is not too cool; if to pass away time, then say, "lazy little bee."

My hive weighs about 25 or 26 pounds, without the section-case or cap. I view this matter in about the same light as almost all bee-keepers of the present day view the legendary stories of "king bees," and "telling the bees" when a member of the family has died (for good luck). But there are some "slow to learn."

Last evening a neighbor said to me, "I find water on the cloth in my hive every time I look at it." I asked, "What kind of cloth do you use?" He answered, "Enameled." Having neglected to remove the enameled cloth, the result was condensed moisture and no absorbent.

Slippery Rock, Pa.

TEXAS.

Horticultural Society—Honey-Production in Texas.

Written for the American Bee Journal

BY A. C. ATEN.

On Feb. 17, the American Horticultural Society held its biennial meeting in Austin, Texas, in Representatives' Hall at the Capitol. There were persons here from almost every State in the Union, and a more intelligent body of men it would be difficult to find. They continued their meetings for four days, and during this time there was an exhibition of horticultural and other products in the Agricultural Department of the Capitol.

The Capitol of Texas is the seventh largest building in the world—built of red granite, and is nearly 600 feet long, and almost 300 feet wide, three stories high besides the basement; it contains 258 rooms, and is 311 feet high from the grade line to the top of the dome. A better place for an exhibition would be hard to find.

EXCELLENT EXHIBITS OF HONEY.

Our enterprizing apiarist, Mrs. Sherman, of Salado, Tex., had a very pretty exhibit of honey, honey preserves and Houdan eggs. She produced some 6,000 pounds of honey last year, all of which is sold.

I had on exhibition about 800 pounds of honey, comb and extracted; quite a number of different kinds of honey, such as horse-mint, wild marigold, broom-weed, cotton, rich-weed, morning-glory, etc. I had about 20 glass two-quart cans, one-third of which was granulated; the balance, except the comb honey, was in one-gallon tin cans, with screw tops. My honey proved a great attraction, and I sold it nearly all by the time the fair closed. A few days ago I had an order for honey which I filled, to go to New York, near West Point.

We had by far the coldest weather of the winter about Feb. 26. The bees were beginning to do well—now the most of their supplies are cut off.

HONEY STATISTICS OF TEXAS.

I have just received the annual report of the Agricultural Bureau of the State of Texas, and with some considerable time and care, I have compiled a few figures in regard to the honey-product of this State, for the year 1888, which I hope will be interesting to all. This report was gathered by the assessors, while assessing the property in the spring of 1889, and I presume that it can be relied upon as nearly correct.

The year 1888 was a very poor honey-year for the greater portion of Texas, my own yield, however, that year was over 120 pounds per colony, spring count.

The total number of colonies in the State was, 146,322; total number of pounds of honey, 2,610,100; total value of the honey, $257,989.

The largest number of colonies in any one county (Ellis), 4,644; smallest number (in Galveston and Hardeman), each 6; average number of pounds per colony for the State, 18; average value per pound, 10 cents; least average price per pound of any one county (Waller), 5 cents; largest average price per pound of any one county (Starr), 25 cents.

The greatest yield was in Williamson county, 128,053 pounds; most valuable yield (Williamson county), $10,437; highest average yield was in Brazoria county, 53⅔ pounds per colony; lowest average yield, Grayson county, 1⅛ pounds per colony.

In Uvalde county, 2,375 colonies yielded an average of 40 pounds per colony. The smallest number of pounds reported for any one county was in Greer county, being 50 pounds.

The statistics in regard to honey are tolerably complete, and, I think, reliable. The production of honey in this State, I really believe, is just in its infancy. There are perhaps a thousand pounds of honey lost, to one pound that is gathered by the bees in Texas. What a saving of money and health, if this was all saved and used here, in the place of the other sweets!

Round Rock, Texas, March 7, 1890.

CONVENTION DIRECTORY.

1890. *Time and place of meeting.*

April 16, 17.—Missouri State, at Marshall, Mo.
J. W. Rouse, Sec., Santa Fe, Mo.

May 1.—Southwestern Wisconsin, at Boscobel, Wis.
Benj. E. Rice, Sec., Boscobel, Wis.

May 3.—Susquehanna Co., at Hopbottom, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 7, 8.—Texas State, at Greenville, Tex.
J. N. Hunter, Sec., Celeste, Tex.

May 19.—Northern Illinois, at Cherry Valley, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

SELECTIONS FROM OUR LETTER BOX

Hive-Entrances and Ventilation.

In reply to Mr. A. N. De Groff's question on page, 188, I would say: To close, or partly close, the hive-entrance, I use a square piece of board ⅛ of an inch thick, and some longer than the entrance of the hive, driving an inch wire-nail through the center, the point reaching ⅛ of an inch through, so that when placed at the entrance, with a little pressure it fastens it to the bottom-board so that the bees or wind cannot remove it. It is very handy to adjust as desired. I remove my bees from the cellar in the evening; the next day they will come out undisturbed, and locate themselves much better. In removing bees from the cellar in the daytime, it helps very much to fill the cellar with smoke; then placing on the blocks, you need not lose a bee. It will not do to shut bees in long at a time, unless they are in the dark, as they will worry themselves to death.

Bronson, Mich. BYRON BENTON.

Double-Walled Hives.

I have read with interest the discussion for and against double-walled hives, and cannot help giving my experience, for I have used nothing else for the last five years, and have not lost a colony. I make mine out of ⅛-inch lumber planed on both sides, with ⅞-inch dead air space, and loose bottom-boards ⅛ of an inch thick. In winter I simply fill the cover with chaff, first putting canvas on top of the brood-frames. These hives are no heavier than hives made of ⅞-inch lumber, and are much cooler in summer. They are the easiest for tiering up for comb honey, for the tiers can be run to any heighth; or can be used for extracting, as I do, by putting on extra brood-chambers on top, in place of the sections.

F. W. TAYLOR.

Bee-Keeping in Nebraska.

Last season bees here did fairly well, but not so well as the year before. The yield was good for this part of the country, but not as good as in some other places. Bees are wintering will, as a general thing. Mine are wintering out-of-doors, banked with hay; they were put away in December, and I had not looked at them until to-day. I found one colony dead out of 35; it was a late swarm, coming in September, and did not have enough honey; but the balance have plenty so far, and will have if the spring is not very late. I have been keeping bees three years, and this is the first that I have lost. I take the greater part of my honey with the extractor, and I like it best. I have no trouble in selling it, having sold my crop so far at 10 and 12½ cents for extracted, and 12½ cents per pound for comb honey. The extracted is much less trouble, and easier to take care of. I put it in open stone-jars, tie a paper over the top of the jar, and put it upstairs; it has cured nicely, and has not grained any yet. I use the Langstroth frame, but not the hive, but one similar to it, except the cap. The body of the hive is like the Langstroth, except that I nail a band around one inch from the top, and have the cap rest over that, making a water-proof box, and it is handy. JAS. KINCAID.

Clay Center, Nebr., March 12, 1890.

Wintered Nicely—Tiering Up.

I started last spring with 13 colonies, and increased them to 37, which I will have to commence with this season. They have all wintered nicely so far. I noticed on page 187, in a letter entitled "Management of Bees," the writer said that he had some trouble in getting his to start to working in the supers. If you will permit me, at some future time, I will give my method of tiering up. I prize the BEE JOURNAL very highly. A. M. TINKER.

De Witt, Iowa, March, 14, 1890.

[Certainly; we want all the light, and if you have anything *new*, we would like to give it to our readers.—ED.]

Spacing and Inverting Hives.

For two or three years I have been trying to think of some way of inverting and properly spacing Langstroth frames, and without cutting the projecting ends of the frames off. I am pleased to say that I have found it in the Wilcox spacing arrangement. I have changed my eight-frame Langstroth hives with fixed bottoms, to loose bottoms, with ¼-inch strips on the two sides and rear end, so that they can be inverted or tiered up. This arrangement also provides against unproper spaces at the ends of the frames, as they sometimes get racked endwise. It also keeps the ends of the frames free from propolis, and holds one or more frames in place as well as a hiveful, and is also a great convenience when moving or shipping bees. WALTER HARMER.

Hive-Entrances when Moving.

On page 188, Mr. A. N. DeGroff asks "how to close the main entrance to hives when moving them to and from the cellar," etc. My plan, which I find very convenient, is to take a piece of board ⅜-inch thick, and about one inch wider, and 2 or 3 inches longer than the opening in the hive; cut a piece from one edge, about ½-inch wide, and 2 or 3 inches shorter than the strip; tack wire-cloth over the space thus made, and place this strip over the entrance to the hive, having first fitted a screw through the upper edge of it, and a few turns of the screw will hold it securely in place, closing the hive, and giving the ventilation desired. A wooden buttom placed above the strip in such a way as to be turned down over the strip, will hold it in place, and is even more convenient than the screw for contracting the entrance against robbers or cold air. I use a strip without the wire-cloth, moving it to one side so as to give space for one bee or more to pass at the side of the entrance. A square piece of wood placed on the alighting-board, heavy enough to remain in position, will answer the purpose. J. M. CLARK.

Hillsdale, Mich., March 15, 1890.

Against Migratory Bee-Keeping.

I notice on page 145 that Byron Walker, of Michigan, wants to come with a big load of bees in July, when basswood is in blossom. I will say right now that we do not want him here at all, if he comes with so many bees to take the bread from our tables, and then sell the honey for almost nothing here, and ruin our markets all along the Mississippi. That is what we do not like, for it is not profitable for us here on the river. I had 12 acres of land, but it was not good for bees, so I sold it last year and bought a better place here, close to the Mississippi river, about 20 miles north of Dubuque, Iowa. I want to make some money, and I do not want to be bothered by Byron Walker and his bees. There are more bee-keepers here that talk the same as I do. Cannot Mr. Walker stay at home and make the business pay, as any other good bee-man does? PETER EHL.

Sherrill's Mount, Iowa, March 10, 1890.

Good Season Expected in Utah.

After one of the hardest winters, we are just beginning to have spring, which is rather late for this region. The probabilities are considerable loss in bees; we anticipate, though, a much better honey season this year than we had last.

JOHN C. SWANER.

Salt Lake City, Utah, March 17, 1890.

Enlightened by the Almanacs.

On March 12 bees had their first flight since Nov. 15, 1889. There is 2 feet of snow on the ground now. I was in town the other day, and asked a woman if she did not want some honey. She wanted to know if the bees *made* honey when there was so much snow on the ground! Another person wanted to know what the queen did when the "king" died. I will give these people some Honey Almanacs, to enlighten them. I got one barrel full of golden-rod honey. Some of my colonies in the cellar have the diarrhea. HENRY STARK.

Pulcifer, Wis., March 17, 1890.

The Use of Swarm-Hivers.

I have read Mr. Lacy's description of what he calls a "swarm-hiver," on page 170. It seems to me that Mr. Lacy, or myself, has attached a wrong name to such a device. How can the arrangement of Mr. Lacy's be called a "hive-swarmer?" Any one who will look at that arrangement for a moment, will say that no queen is likely to pass through the side of the hive, and into an adjoining hive at swarming time. It is natural for the bees and queens, when a swarm issues, to pass out at the regular entrance that the bees have been accustomed to use. Then, again, if the queen should pass into the vacant hive, what will prevent her from returning to the home hive? If Mr. L. has a device to prevent the queen from returning to her own combs, then he infringes my "rights." But as there is so little chance of any queen being captured by the arrangement he proposes, I will not take space to discuss it here.

It seems to me when Mr. Lacy constructed his swarmer, he did not properly consider the nature of the bee; had he done so, he would have devised a little different arrangement. When I devised my swarmer, the following points were considered, viz: 1. The bees must issue from the hive through the regular entrance. 2. Some way to rid the swarmer of drones must be provided while the swarmer is on the hive, as the drones will certainly leave the hive by the same exit that the other bees do. In this respect, the swarmer will serve as a

drone-trap. But with the Lacy swarmer there is no outlet for the drones. Those who have used the metal "drone stopper" (if I may call it by that name) know how much the drones bother and hinder the worker-bees in their work, and stop the ventilation (in a hot day) to the hive containing a large colony of bees.

I should say that the Lacy device is a better non-swarmer than a swarm-hiver. By such an arrangement the bees will be more likely to be crowded into the vacant hive during hot weather, than they are to swarm. But, then, if such a claim is worth anything, why not use a much better and simpler device, and one that can be operated without any perforated metal? Place an empty hive under a full colony, and the bees will gradually work down into it, and no swarm is likely to issue. Increase, however, is not what most bee-keepers desire. Honey is the thing that we are all after. My swarm-hiver is intended to catch a swarm, in case one issues. It is not necessary to place a hive to catch the bees—almost any kind of a box will do.

HENRY ALLEY.

Promptness—Wintering Well.

Doolittle's "Scientific Queen-Rearing" came in just four days from the time the money left here. Bees are wintering very well from all appearances, and from what I have seen and heard others say. The weather is very warm, and bees are flying almost every day. WM. HEYWOOD.

Stafford, N. Y., March 13, 1890.

[It is our aim to fill all orders on the day they are received, as well as to answer all business letters immediately upon their receipt. "Punctuality" is our office watchword.—ED.]

That Wide Top-Bar.

Such an article as Smith & Smith's, on page 186, really needs some comments in order not to lead its readers astray. They have a plain box with about my new style of bottom-board under it, and that is not so bad; they have a T case, with about my old-style of cover on it, and that is not so bad; but their top-bar would make the most unprofitable condition in a brood-chamber, possible. The width of the top-bar is just about the same as the distance combs should be apart from center to center. Now as these top-bars do not, and could not, touch each other, and must be separated, they will have the worst lot of drone-comb and brace-combs plugged in between the edges of the top-bars; and I know that *here*, they would have plenty of brace-combs between the tops of the top-bars and the sruplus receptacles. The only reason I call attention to it, is because I think that it is really too bad for any one to mislead young and inexperienced bee-keepers. JAMES HEDDON.

Dowagiac, Mich., March 14, 1890.

What Ailed the Bees?

Last fall I put 80 colonies of bees in my bee-house cellar—40 of them were blacks, and the remainder Italians and hybrids. The black bees were in rather better condition to winter, but the Italians had had as good a chance to prepare for winter quarters as the blacks. About two months ago the hybrids began to die—several colonies died during January, 8 in February, and to-day there are only 4 or 5 of them left—I think that they will go to. Not one of the black colonies is dead.

I have carefully examined the hives, and find that about one half of them died of starvation, while the rest had from 2 to 20 pounds of honey in the hive. My experience the past three winters has been similar to this—the Italians and hybrids died while the blacks wintered all right. I should call my case an exceptional one, were it not for the fact that other bee-keepers in this vicinity are having the same experience. The temperature has not been below 30 degrees in my cellar, and has generally been at 38 or 40 degrees. Can any one give the cause of the trouble?

AKED D. ELLINGWOOD.

Milan, N. H., March 13, 1890.

HONEY AND BEESWAX MARKET.

MILWAUKEE, March 13.—The demand for honey is very good, and the supply is fair. We quote: White 1-lbs.,12@13c—and if absolutely perfect, sometimes 14c.; choice, white 2-lbs., 12@12½c.; dark 1-lbs., 10@11c.; old 1-lbs., 8@9c. Extracted, white, in barrels and half-barrels, 7½@8c.; in pails and tin, 8@8¼c.; dark, in barrels and half-barrels, 6@6½c. Beeswax, 22@25c.

A. V. BISHOP, 142 W. Water St.

DENVER, March 8.—1-lb. sections, 13@15c.; Extracted, 7@8c. There is sufficient comb honey to supply the market till the new crop arrives. Beeswax, 20@25c.

J. M. CLARK COM. CO., 1517 Blake St.

DETROIT, March 7.—Comb honey is quoted at 11@13c. Supply not large, but sales slow. Extracted, 7@8c. Beeswax, firm at 24@25c.

M. H. HUNT, Bell Branch, Mich.

KANSAS CITY, March 6.—The demand for honey is improving a little, but it is no better in prices. White 1-lbs., 11@12c.; white 2-lbs.; 10@11c.; fall 1-lbs., 9@10c.; 2-lbs., 8@9c. Extracted, white, 7c.; dark, 5@6c. Beeswax, 22c.

CLEMONS, CLOON & CO.,
Cor. 4th and Walnut Sts.

CHICAGO, Mar. 13.—We quote: White clover in active demand and quick sales, on arrival; 1-lbs., 13@14c.; 2-lbs., 12@12½c. Basswood 1-lbs., 12@13c. Buckwheat 1-lbs., 8@9c. Extracted, 6½@7½c. Beeswax—bright, 25@26c.; dark, 23@24c.

S. T. FISH & CO., 189 S. Water St.

CHICAGO, March 6.—Honey is selling quite well in a small way, at 12@13c. for white 1-lbs., and 10c. for 2-lbs.; dark is slow at 8@10c. Receipts are heavier than usual for this season of the year, but all is called for as fast as it arrives. Extracted is dull at 6@8c. Beeswax, 25c.

R. A. BURNETT, 161 S. Water St.

BOSTON, March 22.—Fancy 1-lbs., 16c. Anything off-grade sells considerably below 16c. The market is bare of fancy, 1-lb. white honey. Extracted, 7½@8½c. No beeswax on hand.

BLAKE & RIPLEY, 57 Chatham St.

CINCINNATI, March 7.—Good demand for extracted honey, especially from manufacturers at 5@8c. Comb honey, 12@15c. for best. Demand fair.

Beeswax is in good demand at 20@25c. for good to choice yellow. C. F. MUTH & SON,
Corner Freeman & Central Aves.

NEW YORK, March 22.—The market is well stocked with extracted honey. We quote: White clover, basswood and California, 7@7¼ per lb.; Southern, 70@75 cts. per gallon. No demand for comb honey, except for fancy stock, at from 12@13c per lb. Beeswax, 27c.

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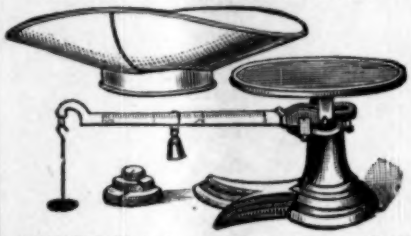

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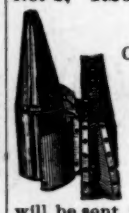

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